EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	11047	anthraquinone adj dye	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/06/24 19:07
L2	312	1 same (petroleum hydrocarbon)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/06/24 19:08
L3	222	2 and formula	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/06/24 19:11
L4	5	("4977134").URPN.	USPAT	OR	ON	2007/06/24 19:15
L5	3	("4051052").URPN.	USPAT	OR	ON	2007/06/24 20:22
L6	0	"58880287".pn.	USPAT	OR	ON	2007/06/24 20:23
L7	1	"5880287".pn.	USPAT	OR	ON	2007/06/24 20:24
L8	1	"5525516".pn.	USPAT	OR	ON	2007/06/24 20:25
L9	2	"5525516".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/06/24 20:55
L10	4	baxter-david.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/06/24 20:56
L11	0	cranmer-peter.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2007/06/24 20:56

STN Search

```
Connecting via Winsock to STN


Welcome to STN International!  Enter x:x

LOGINID:SSPTAKXM1743

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  MAR 15   WPIDS/WPIX enhanced with new FRAGHITSTR display format
 NEWS  3  MAR 16   CASREACT coverage extended
 NEWS  4  MAR 20   MARPAT now updated daily
 NEWS  5  MAR 22   LWPI reloaded
 NEWS  6  MAR 30   RDISCLOSURE reloaded with enhancements
 NEWS  7  APR 02   JICST-EPLUS removed from database clusters and STN
 NEWS  8  APR 30   GENBANK reloaded and enhanced with Genome Project ID field
 NEWS  9  APR 30   CHEMCATS enhanced with 1.2 million new records
 NEWS 10  APR 30   CA/CAplus enhanced with 1870-1889 U.S. patent records
 NEWS 11  APR 30   INPADOC replaced by INPADOCDB on STN
 NEWS 12  MAY 01   New CAS web site launched
 NEWS 13  MAY 08   CA/CAplus Indian patent publication number format defined
 NEWS 14  MAY 14   RDISCLOSURE on STN Easy enhanced with new search and display
                   fields
 NEWS 15  MAY 21   BIOSIS reloaded and enhanced with archival data
 NEWS 16  MAY 21   TOXCENTER enhanced with BIOSIS reload
 NEWS 17  MAY 21   CA/CAplus enhanced with additional kind codes for German
                   patents
 NEWS 18  MAY 22   CA/CAplus enhanced with IPC reclassification in Japanese
                   patents
 NEWS 19  JUN 18   CA/CAplus to be enhanced with pre-1967 CAS Registry Numbers

 NEWS EXPRESS  NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 20:08:53 ON 24 JUN 2007

=> FILE REGISTRY
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21
```

FILE 'REGISTRY' ENTERED AT 20:09:07 ON 24 JUN 2007

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 JUN 2007 HIGHEST RN 938512-67-5
DICTIONARY FILE UPDATES: 22 JUN 2007 HIGHEST RN 938512-67-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

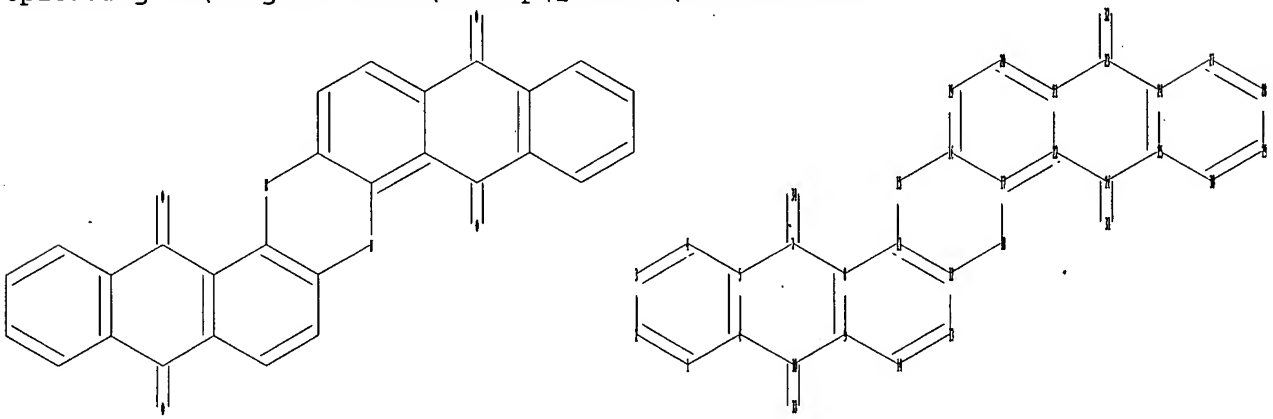
TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10706198.str



chain nodes :
31 32 33 34
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
chain bonds :
7-34 10-33 23-32 26-31
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 11-15 12-13 12-18 13-14 15-16 16-17 16-19 17-18 17-22 19-20 20-21 21-22 21-23 22-26 23-24 24-25 24-27 25-26 25-30 27-28 28-29 29-30
exact/norm bonds :
5-7 6-10 7-8 7-34 9-10 10-33 11-15 12-18 15-16 17-18 21-23 22-26 23-24 23-32 25-26 26-31
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-11 9-14 11-12 12-13 13-14 16-17 16-19 17-22 19-20 20-21 21-22 24-25 24-27 25-30 27-28 28-29 29-30

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:CLASS 32:CLASS 33:CLASS 34:CLASS

L1 STRUCTURE UPLOADED

=> S L1 SSS SAM
SAMPLE SEARCH INITIATED 20:09:35 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 205 TO ITERATE

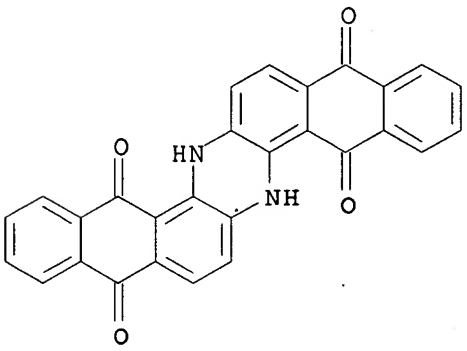
100.0% PROCESSED 205 ITERATIONS 15 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3241 TO 4959
PROJECTED ANSWERS: 68 TO 532

L2 15 SEA SSS SAM L1

=> D SCAN

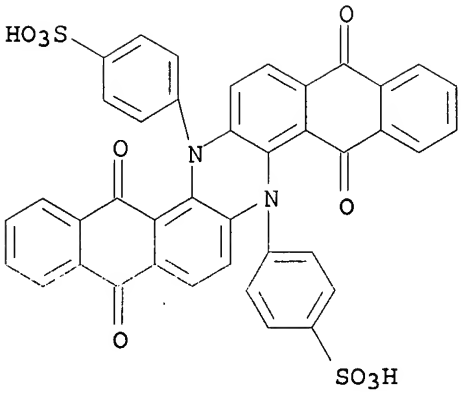
L2 15 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 5,9,14,18-Anthrazinetetrone, 6,15-dihydrodimethyl- (9CI)
MF C30 H18 N2 O4
CI IDS



2 (D1—Me)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

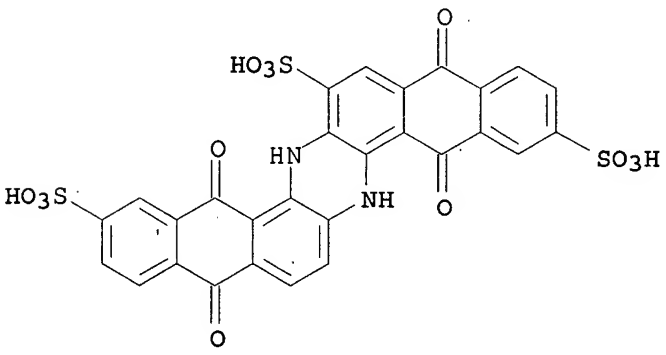
L2 15 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzenesulfonic acid, 4,4'-(5,9,14,18-tetrahydro-5,9,14,18-tetraoxo-6,15-anthrazinediyl)bis- (9CI)
MF C40 H22 N2 O10 S2
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

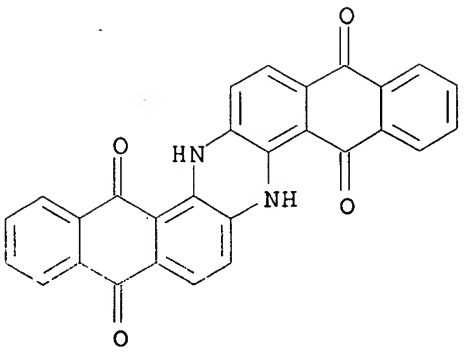
L2 15 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN 3,7,12-Anthrazinetrisulfonic acid, 5,6,9,14,15,18-hexahydro-5,9,14,18-tetraoxo- (9CI)
MF C28 H14 N2 O13 S3

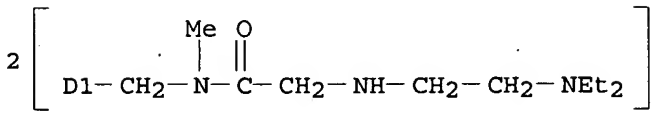


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L2 15 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N,N'-[(5,6,9,14,15,18-hexahydro-5,9,14,18-tetraoxoanthrazinediyl)bis(methylene)]bis[2-[[2-(diethylamino)ethyl]amino]-N-methyl- (9CI)
MF C48 H56 N8 O6
CI IDS





HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):END

=> S L1 SSS FULL
FULL SEARCH INITIATED 20:11:17 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4470 TO ITERATE

100.0% PROCESSED 4470 ITERATIONS 266 ANSWERS
SEARCH TIME: 00.00.01

L3 266 SEA SSS FUL L1

=> FILE CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	173.45	173.66

FILE 'CAPLUS' ENTERED AT 20:11:29 ON 24 JUN 2007

FILE COVERS 1907 - 24 Jun 2007 VOL 147 ISS 1
FILE LAST UPDATED: 22 Jun 2007 (20070622/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> S L3/ANST
1412 L3

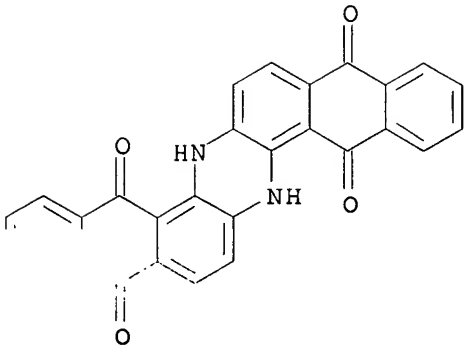
```
       1151904 ANST/RL
L4           31 L3/ANST
                (L3 (L) ANST/RL)

=> D IBIB ABS HITSTR 1-
YOU HAVE REQUESTED DATA FROM 31 ANSWERS - CONTINUE? Y/(N):Y

L4   ANSWER 1 OF 31  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:1311753  CAPLUS
DOCUMENT NUMBER:          144:47715
TITLE:                    Substituted azaporphyrins as fluorescence labels
INVENTOR(S):              Dandliker, Walter B.; Hsu, Mao Lin; Murphy, William P.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 14 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 2005277119         A1    20051215    US 2004-866361           20040614
     WO 2006001944         A1    20060105    WO 2005-US17352          20050518
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
             KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM
     EP 1758917            A1    20070307    EP 2005-751310           20050518
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR
PRIORITY APPLN. INFO.:                       US 2004-866361      A  20040614
                                             WO 2005-US17352     W  20050518

OTHER SOURCE(S):          CASREACT 144:47715
AB   The present invention relates to marker components, fluorescent probes,
     oligonucleotides, hybridization assays, and immunoassays using such
     products, and methods for making such products. According to the present
     invention, detectably labeled marker components are provided that comprise
     a fluorescent moiety coupled to two small solubilizing groups, one on each
     side of the mol. plane, said fluorescent moiety having substituents to
     control net charge so as to reduce or remove the problems of solvent
     sensitivity and nonspecific binding.
IT   81-77-6D, Indanthrene, derivs.
     RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST
     (Analytical study); BIOL (Biological study); USES (Uses)
        (substituted azaporphyrins as fluorescence labels)
RN   81-77-6  CAPLUS
CN   5,9,14,18-Anthrazinetetrone, 6,15-dihydro-  (CA INDEX NAME)
```

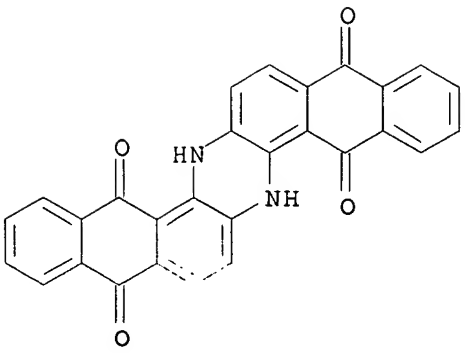


L4 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1263267 CAPLUS
DOCUMENT NUMBER: 144:406001
TITLE: Forensic analysis of automotive paints by Raman spectroscopy
AUTHOR(S): De Gelder, Joke; Vandenabeele, Peter; Govaert, Filip; Moens, Luc
CORPORATE SOURCE: Laboratory of Analytical Chemistry, Ghent University, Ghent, B-9000, Belg.
SOURCE: Journal of Raman Spectroscopy (2005), 36(11), 1059-1067
CODEN: JRSPAF; ISSN: 0377-0486
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this work, the possible contribution of Raman spectroscopy in forensic science is evaluated, more specifically for the anal. of automotive paint samples. Spectra from paint flakes as well as from cross sections were examined, in order to identify not only the pigments but also binders and extenders in all paint layers. Moreover, the possibility of distinguishing paint samples from different cars was evaluated to assess the use of vibrational spectroscopic techniques in the investigation of a hit-and-run accident. The presence of rutile and extenders, such as calcite and barium sulfate, could be demonstrated by their characteristic Raman bands. However, the identification of the binder by Raman spectroscopy was hampered: only with addnl. information from IR anal. could most of the bands in the spectrum be assigned to mol. vibrations of the binders. In contrast, organic pigments, having very distinctive and well-resolved characteristic bands, could easily be identified by comparing the spectra from the basecoat of the sample with spectra from a reference database. Because of these characteristic bands, the basecoat seems to provide the best spectra to distinguish paint samples. Moreover, some paints can also be distinguished by the absence or presence of the bands from calcium carbonate and barium sulfate in the primer surfacer. When recording spectra from paint flakes, Raman bands from the spectra of the clearcoat as well as from the basecoat are obtained.

IT 81-77-6, Pigment Blue 60
RL: ANT (Analyte); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(forensic anal. of automotive paints by FTIR and Raman spectroscopy)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:841791 CAPLUS
DOCUMENT NUMBER: 141:346145
TITLE: Preparation and application of indicator compositions for registering the thawing process
PATENT ASSIGNEE(S): Herrmann, Karsten, Germany; Knittel, Heinz
SOURCE: Ger., 14 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10325714	B3	20041014	DE 2003-10325714	20030606
EP 1484588	A1	20041208	EP 2004-12972	20040602

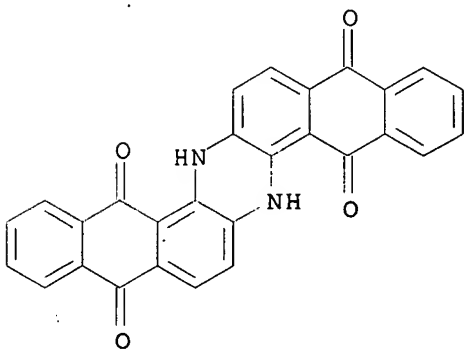
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRIORITY APPLN. INFO.: DE 2003-10325714 A 20030606

AB The invention concerns indicator compns. for recognizing and showing that temperature rises above a certain value, especially to indicate thawing processes in a way that the indicator composition includes an encapsulated substance, e.g. dye in cyclodextran that is mixed with a temperature sensitive substance, e.g. mixture of fatty acids, that has a m.p. at the temperature that has to be controlled; upon exceeding the preset temperature the temperature-sensitive mixture melts which in turn causes the encapsulated substance to change its structure and optical properties. Indicator substances include dyes, metal chelates, and multicomponent reaction systems, e.g. enzymes with substrates. The indicator compns. can be packed in transparent material. The heat-sensitive indicators are used for checking the refrigeration of foods and drugs during storage and transportation. Thus bromphenol blue was encapsulated in β-cyclodextrin; the complex was embedded in a fatty acid mixture with m.p. of 8°C. The fatty acid mixture was composed of (%): caproic acid 0.25; caprylic acid 2.00; capric acid 1.50; lauric acid 11.75; myristic acid 4.50; palmitic acid 12.00; stearic acid 2.00; oleic acid 57.25; linoleic acid 8.00; linolenic acid 0.75. The indicator mixture was colorless before freezing and it showed a light blue color upon freezing.

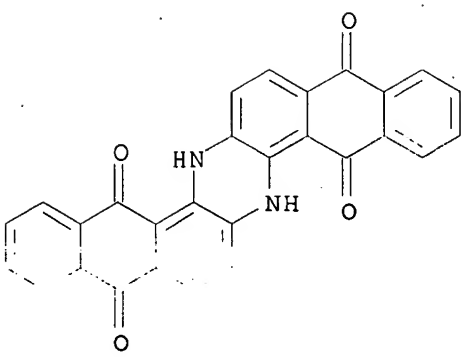
IT 81-77-6, Indanthrene blue RS
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(preparation and application of indicator compns. for registering the thawing process)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:576622 CAPLUS
DOCUMENT NUMBER: 140:323103
TITLE: Study on the protein retanning and filling agent from the graft modification of the hydrolysate of the chrome-shavings with vinyl monomers
AUTHOR(S): Ma, Jianzhong; Liu, Lingyun; Xu, Chunhua; Wang, Wenqi; Yang, Zongsui
CORPORATE SOURCE: College of Leather Engineering, Shaanxi University of Science + Technology, Xianyang, 712081, Peop. Rep. China
SOURCE: Zhongguo Pige (2003), 32(7), 6-10
CODEN: ZHPIEL; ISSN: 1001-6813
PUBLISHER: Zhongguo Pige Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The retanning agent was synthesized by the chrome-shaving hydrolyzate modified with vinyl monomers. The chrome-shavings were hydrolyzed without de-chrome and then modified by grafting agent with vinyl monomers. The modified hydrolyzate was identified by indanthrone, and the IR and amino acid composition of hydrolyzate and the modified hydrolyzate were also analyzed. The vinyl polymer was grafted on the polypeptide chains of chrome-shaving hydrolyzate with covalent bond. This protein retanning agent containing chrome was a benefit to the use of the chrome shavings. The leather retanned by this agent showed Good stretching and filling properties.
IT 81-77-6, Indanthrone
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(in analyzing hydrolyzed tanning waste grafted with acrylic copolymer for retanning filler)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)

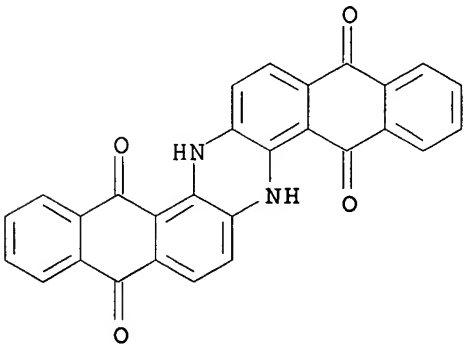


L4 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:431453 CAPLUS
DOCUMENT NUMBER: 138:403073
TITLE: UV/visible spectroscopic identification of dyes
INVENTOR(S): Langhals, Heinz
PATENT ASSIGNEE(S): Germany
SOURCE: Ger. Offen., 66 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10157034	A1	20030605	DE 2001-10157034	20011121
PRIORITY APPLN. INFO.:			DE 2001-10157034	20011121

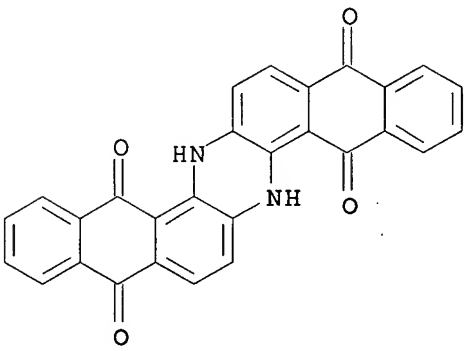
AB A procedure for the identification of dyes on the basis of gaussian function analyses of their UV/visible spectra is disclosed. This is demonstrated in detail by the example of azo dyes from the dye prohibition list. The UV/visible spectroscopic distance of two spectra is defined and presented as a measure of agreement of the spectra.

IT 81-77-6, C.I. 69800
RL: ANT (Analyte); PRP (Properties); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(gaussian anal. of UV/visible spectra for identification of dyes)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:764671 CAPLUS
DOCUMENT NUMBER: 138:40688
TITLE: The rapid identification of organic colorants by

UV/vis spectroscopy
AUTHOR(S): Langhals, Heinz
CORPORATE SOURCE: Department of Chemistry, University of Munich, Munich, 81377, Germany
SOURCE: Analytical and Bioanalytical Chemistry (2002), 374(3), 573-578
CODEN: ABCNBP; ISSN: 1618-2642
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A rapid UV/visible spectroscopic method for the identification of organic colorants by the use of Gaussian anal. is presented. Sets of parameters are obtained for the screening with a low number of data. An optical distance using line positions and intensities is defined as a measure for the similarity of the UV/visible spectra.
IT 81-77-6, C.I. 69800
RL: ANT (Analyte); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(rapid identification of organic colorants by UV/visible spectroscopy)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



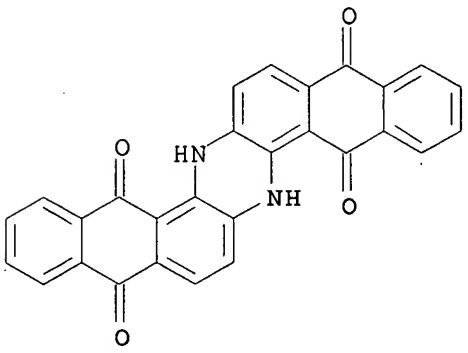
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:530689 CAPLUS
DOCUMENT NUMBER: 133:278253
TITLE: A noninstrumental immunoassay based on colloidal dyes
AUTHOR(S): Lubavina, I. A.; Salomatina, I. S.; Zinchenko, A. A.; Zherdev, A. V.; Dzantiev, B. B.
CORPORATE SOURCE: Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, 117871, Russia
SOURCE: Russian Journal of Bioorganic Chemistry (Translation of Bioorganicheskaya Khimiya) (2000), 26(3), 207-212
CODEN: RJBCET; ISSN: 1068-1620
PUBLISHER: MAIK Nauka/Interperiodica
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Detecting labels based on water dispersions of colloidal textile dyes were developed that are useful in various anal. and diagnostic test systems for a simple visual assessment of the assay. Colored water-insol. particles of dyes were used for the sorptional immobilization of streptavidin on their surface. The resulting streptavidin-dye (STR-DYE) complexes possessed a high visualizing capacity and were used for the combined detection of pesticides (simazine and 2,4-dichlorophenoxyacetic acid) by noninstrumental immunoassay (DYE-comb-assay, competitive dot-immunoassay in the comb format). The detection limits and the duration of our DYE-comb-assay (4 ng/mL, 20-25 min), HRP-comb-assay (competitive

dot-immunoassay in the comb format using the enzymic conjugate of STR with horseradish peroxidase) (16 ng/mL), and the traditional competitive ELISA (12-16 ng/mL, 1.5 h) were compared. This DYE-comb-assay is simple enough and can be used under field conditions.

IT 81-77-6
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Dark Blue Anthraquinone V, with immobilized streptavidin; a noninstrumental immunoassay based on colloidal dyes)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:204510 CAPLUS
DOCUMENT NUMBER: 128:254596
TITLE: Redox-active compounds for use as analytical reagents in detection kits for assays of enzymes and biomolecules
INVENTOR(S): Heindl, Dieter; Herrmann, Rupert; Hones, Joachim; Josel, Hans-Peter; Junius-Comer, Martina; Merdes, Hartmut; Schmidt, Axel; Selbertinger, Ernst
PATENT ASSIGNEE(S): Boehringer Mannheim G.m.b.H., Germany
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 831327	A1	19980325	EP 1997-116653	19970924
EP 831327	B1	20010509		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19639169	A1	19980402	DE 1996-19639169	19960924
US 6057120	A	20000502	US 1997-934784	19970922
CA 2216105	A1	19980324	CA 1997-2216105	19970923
JP 10130247	A	19980519	JP 1997-259106	19970924
AT 201098	T	20010515	AT 1997-116653	19970924
ES 2157037	T3	20010801	ES 1997-116653	19970924

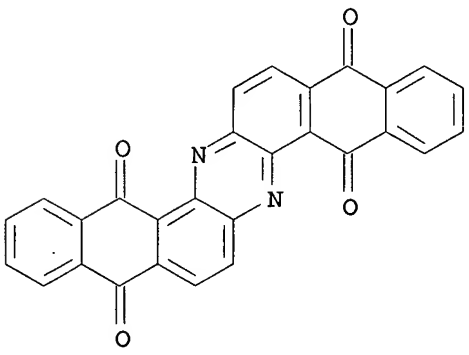
PRIORITY APPLN. INFO.: DE 1996-19639169 A 19960924
OTHER SOURCE(S): MARPAT 128:254596
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Compds. active in redox reactions for use as anal. reagents for detection kits, especially for enzymes and other biomols., are of general 1,4-naphthoquinone (I and II) and 1,2-naphthoquinone (III and IV) structures [R1 and R2 are H, halogen, or organic substituents; X = O, S, C(Acc)2, CH(Acc), or N(Acc), in which Acc is an electron-withdrawing group; n = 0-4; and R3R4 together form one or more aromatic and substituted aromatic rings; when n ≥1, the intermediate aromatic rings can be substituted]. The syntheses of benzonaphthophenazin-8,13-diones and dehydroindanthrensulfonic acids and their use in enzyme and enzyme substrate detns. are described.

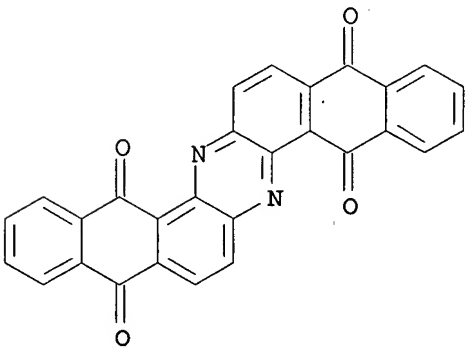
IT 205392-53-6P 205392-54-7P
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(redox-active compds. for use as anal. reagents in detection kits for assays of enzymes and biomols.)

RN 205392-53-6 CAPLUS
CN Anthrazinesulfonic acid, 5,9,14,18-tetrahydro-5,9,14,18-tetraoxo- (9CI) (CA INDEX NAME)



D1—SO_3H

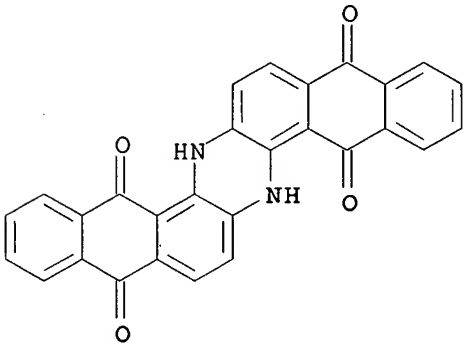
RN 205392-54-7 CAPLUS
CN Anthrazinedisulfonic acid, 5,9,14,18-tetrahydro-5,9,14,18-tetraoxo- (9CI) (CA INDEX NAME)



2 [D1—SO_3H]

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:411707 CAPLUS
DOCUMENT NUMBER: 127:55223
TITLE: Evaluation of the electrochemical treatment of dye effluents by freshwater lumino bacterium bioassay
AUTHOR(S): Tong, Zhonghua; Ma, Mei; Wang, Zijian; Liao, Jun; Yang, Ji
CORPORATE SOURCE: State Key Laboratory Environment Aquatic Chemistry, Res. Center Eco-Environmental Sciences, Chinese Academy Sciences, Beijing, 100085, Peop. Rep. China
SOURCE: Huanjing Huaxue (1997), 16(2), 130-134
CODEN: HUHUDB; ISSN: 0254-6108
PUBLISHER: Kexue
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A new type of fresh water lumino bacterium (Vibrio qinghaiensis sp. Q67) was adapted for evaluating the toxicity of fourteen dyes and the toxic variation of dye effluents in the electrochem. treatment. Evidences showed that this bioassay method was a rapid, simple and sensitive one in assessing the toxicity and toxic variation. By comparing the TOC removal and toxicity reduction, we proposed to combine the chemical and biol. monitoring for the better evaluation in the waste water treatment processes.
IT 81-77-6, Vat blue RSN
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU (Biological study, unclassified); REM (Removal or disposal); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(evaluation of toxicity of dyes and the electrochem. treatment of dye wastewater by freshwater lumino bacterium bioassay)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



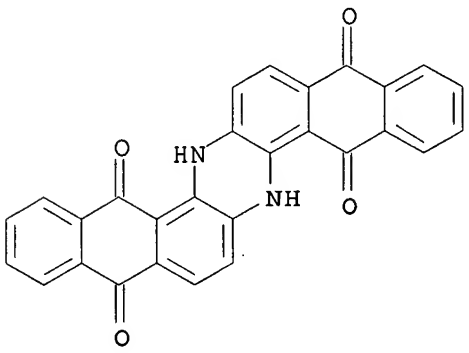
L4 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:174035 CAPLUS
DOCUMENT NUMBER: 126:324657
TITLE: Stationary phases. 48. "Sock-ball" liquid chromatography of aldehydes, ketones and quinones on C60-fullerene stationary phase
AUTHOR(S): Chang, Cheng-Shyong; Den, Tschau-Gan; Chen, Cheng-Chang
CORPORATE SOURCE: Dep. Applied Chem., Chung Cheng Inst. Technology, Tashi, Taiwan
SOURCE: Huaxue (1996), 54(4), 7-19
CODEN: HUHSA2; ISSN: 0441-3768
PUBLISHER: Chinese Chemical Society

DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Aldehydes, ketones or quinones were tested and separated using a prepared C60-fullerene stationary phase or a com. RP-18 phase with methanol/water (100/0-80/20) as mobile phase. C60-fullerene phase has the special selectivity and good performance for the separation of such solutes as compared with those of RP-18 under the same reversed phase conditions. Base on the mechanism of electron donor-acceptor interaction or sock-ball combination interaction, quinones or some ketones can undergo more pronounced interaction with C60 ligand. For example, the tested Acrylamide yellow, a sock-like structure of quinone, calculated by semi-empirical method, can undergo a sock-ball liquid chromatog. using C60-fullerene phase, and possesses the strongest retention. Other quinones with bend or planar structure eluted on C60-fullerene phase can undergo a charge-transfer liquid chromatog., but only possess strong retentions. This retention power can be applied successfully to sep. some quinone pigments or natural products.

IT 81-77-6
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(Indanthrone blue; C60-fullerene modified and RP-18 stationary phases for liquid chromatog. of)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:132797 CAPLUS
DOCUMENT NUMBER: 126:145372
TITLE: Polyoxyhydrocarbylene-modified marker components for use in fluorescence immunoassays
INVENTOR(S): Dandliker, Walter Beach; Devlin, Robert Francis; Arrhenius, Peter Olaf Gustaf; Hsu, Mao-Lin
PATENT ASSIGNEE(S): Hyperion, Inc., USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9641144	A2	19961219	WO 1996-US8935	19960604
WO 9641144	A3	19970206		
W: CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5880287	A	19990309	US 1995-476544	19950606
JP 2001517296	T	20011002	JP 1997-501385	19960604
PRIORITY APPLN. INFO.:			US 1995-476544 A	19950606
			US 1990-524212 B2	19900515

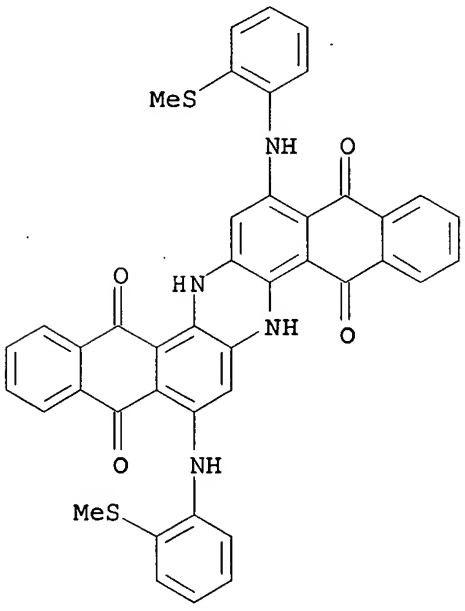
US	1991-701449	A3 19910515
US	1991-701465	B1 19910515
US	1994-333603	A2 19941102
US	1994-346098	A2 19941129
WO	1996-US8935	W 19960604

AB Fluorescent dyes comprising a fluorophore moiety which comprises a luminescent substantially planar mol. structure with excitation wavelength ≥500 nm, bonded to one or more polyoxyhydrocarbylene moieties, are free of aggregation and serum binding and thus suitable for applications such as fluorescence immunoassays, in vivo imaging and in vivo tumor therapy. Immunoassay methods utilizing these dyes are thus particularly useful for the assay of biol. fluids, such as serum, plasma, whole blood and urine.

IT 107444-69-9D, polyoxyethylene derivs. 107444-78-0D, polyoxyethylene derivs. 120745-51-9D, polyoxyethylene derivs. 120907-89-3D, polyoxyethylene derivs. 120907-90-6D, polyoxyethylene derivs. 120907-94-0D, polyoxyethylene derivs. 120908-15-8D, polyoxyethylene derivs. 120908-17-0D, polyoxyethylene derivs. 120908-30-7D, polyoxyethylene derivs. 120908-35-2D, polyoxyethylene derivs. 120944-79-8D, polyoxyethylene derivs. 120944-81-2D, polyoxyethylene derivs. 120944-82-3D, polyoxyethylene derivs. 121968-47-6D, polyoxyethylene derivs. 121968-50-1D, polyoxyethylene derivs. 121968-51-2D, polyoxyethylene derivs. 186523-60-4D, polyoxyethylene derivs. 186523-61-5D, polyoxyethylene derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(polyoxyhydrocarbylene-modified marker components for use in fluorescence immunoassays)

RN 107444-69-9 CAPLUS

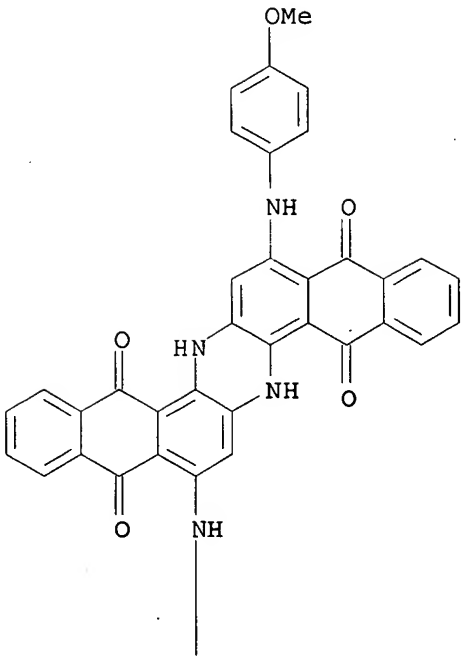
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[[2-(methylthio)phenyl]amino]- (9CI) (CA INDEX NAME)



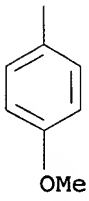
RN 107444-78-0 CAPLUS

CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(4-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

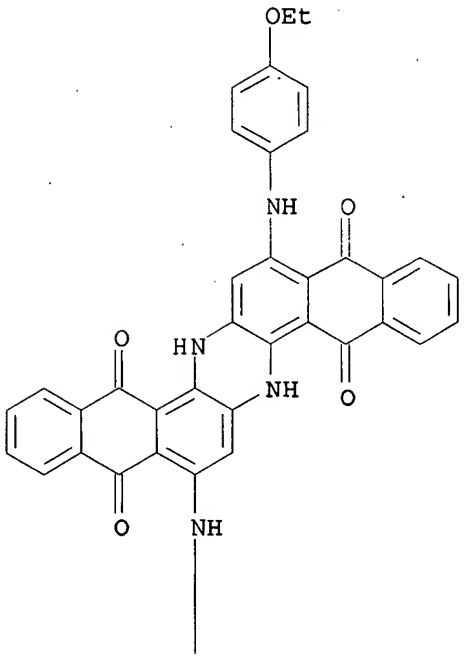


PAGE 2-A

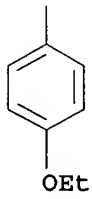


RN 120745-51-9 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis[(4-ethoxyphenyl)amino]-6,15-dihydro-(9CI) (CA INDEX NAME)

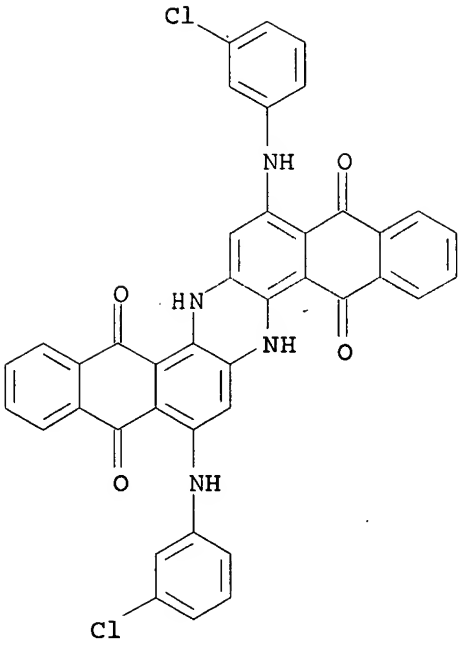
PAGE 1-A



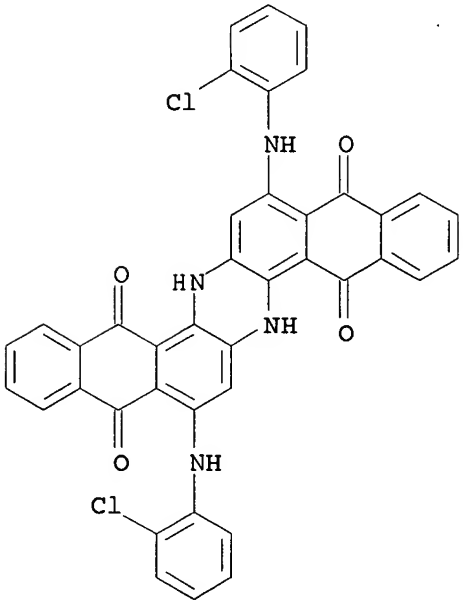
PAGE 2-A



RN 120907-89-3 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis[(3-chlorophenyl)amino]-6,15-dihydro-(9CI) (CA INDEX NAME)

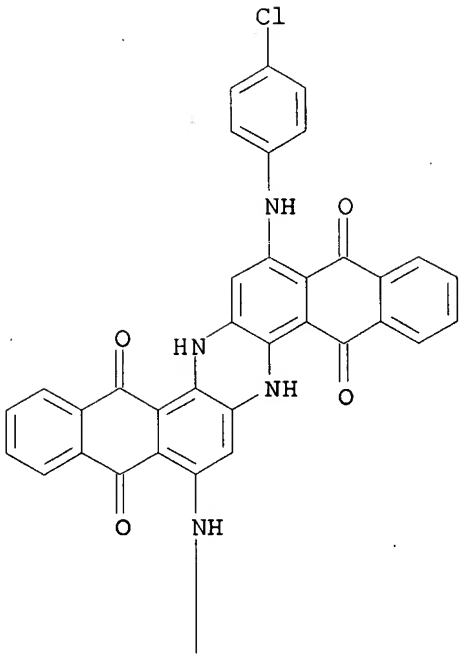


RN 120907-90-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis[(2-chlorophenyl)amino]-6,15-dihydro-(9CI) (CA INDEX NAME)

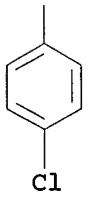


RN 120907-94-0 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis[(4-chlorophenyl)amino]-6,15-dihydro-(9CI) (CA INDEX NAME)

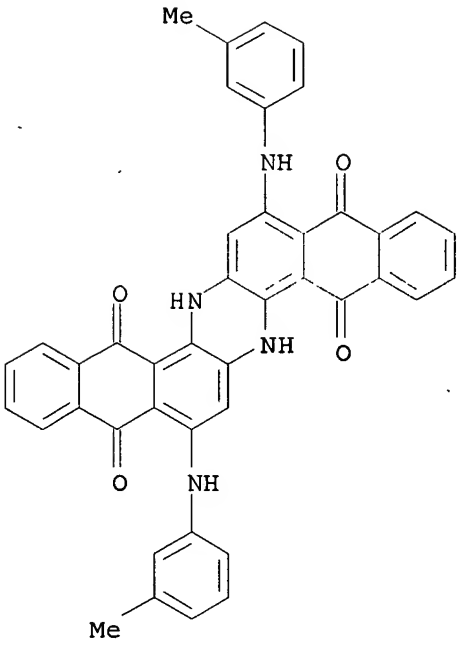
PAGE 1-A



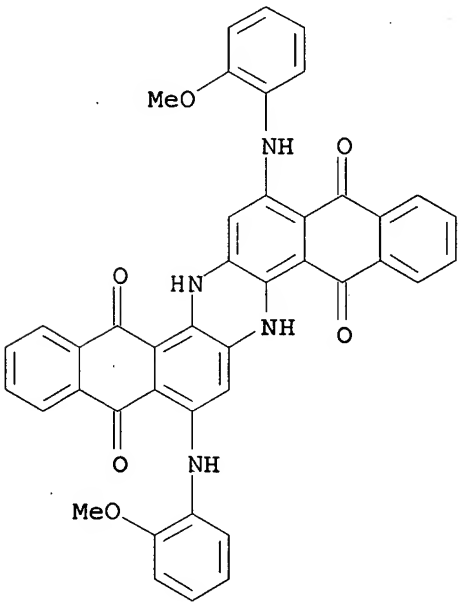
PAGE 2-A



RN 120908-15-8 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(3-methylphenyl)amino]-
(9CI) (CA INDEX NAME)

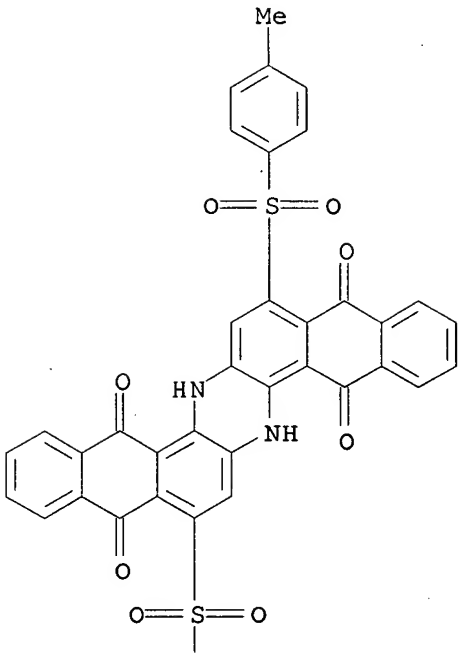


RN 120908-17-0 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(2-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)

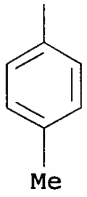


RN 120908-30-7 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

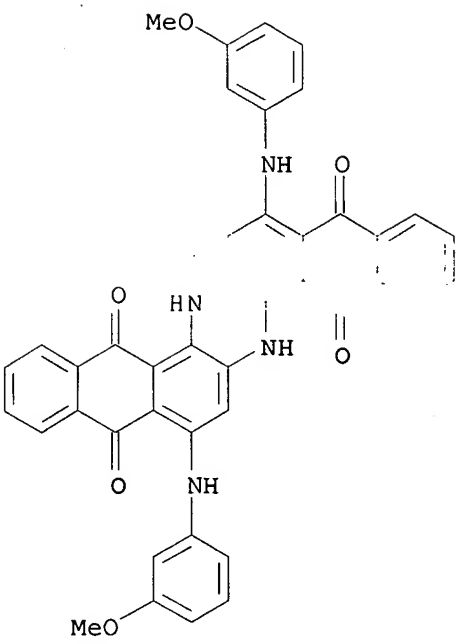
PAGE 1-A



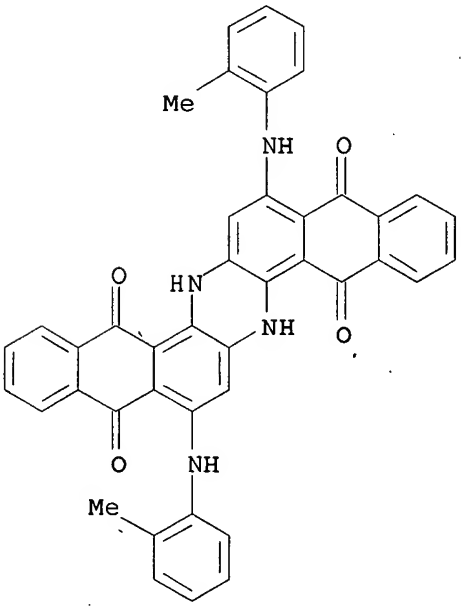
PAGE 2-A



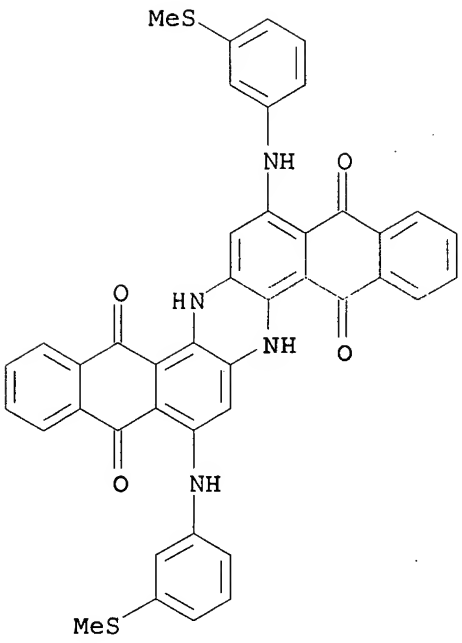
RN 120908-35-2 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(3-methoxyphenyl)amino]- (9CI) (CA INDEX NAME)



RN 120944-79-8 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(2-methylphenyl)amino]- (9CI) (CA INDEX NAME)

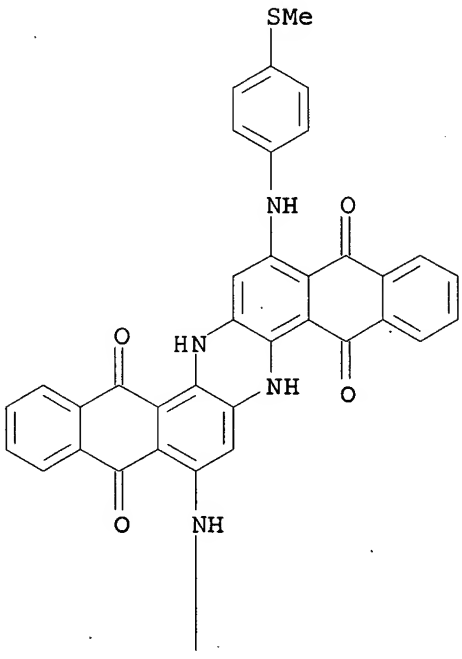


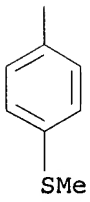
RN 120944-81-2 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[[3-(methylthio)phenyl]amino]- (9CI) (CA INDEX NAME)



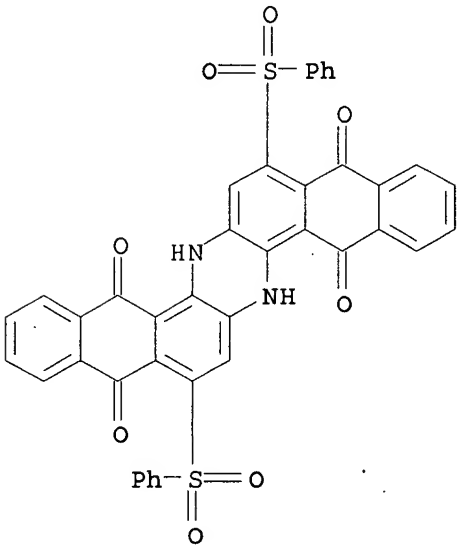
RN 120944-82-3 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[[4-(methylthio)phenyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



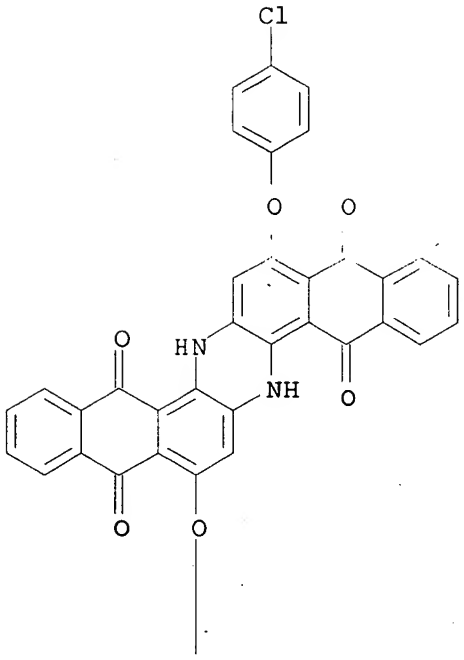


RN 121968-47-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis(phenylsulfonyl)- (9CI) (CA INDEX NAME)

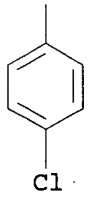


RN 121968-50-1 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis(4-chlorophenoxy)-6,15-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A

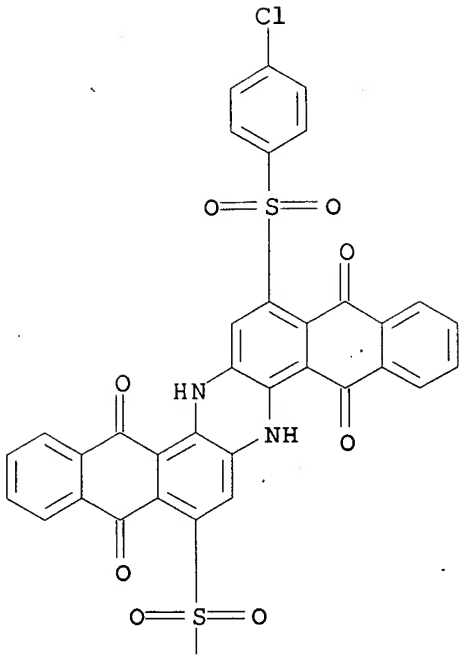


PAGE 2-A

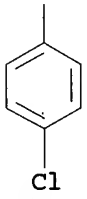


RN 121968-51-2 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 8,17-bis[(4-chlorophenyl)sulfonyl]-6,15-dihydro- (9CI) (CA INDEX NAME)

PAGE 1-A

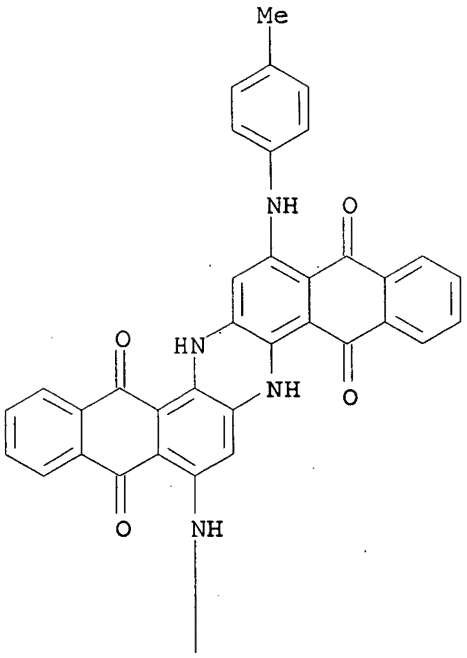


PAGE 2-A

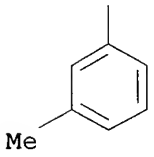


RN 186523-60-4 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8-[(3-methylphenyl)amino]-17-[(4-methylphenyl)amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

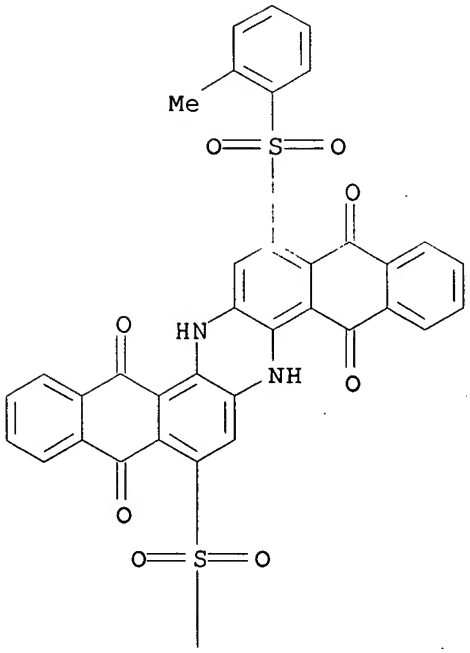


PAGE 2-A

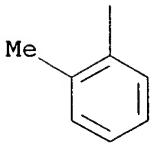


RN 186523-61-5 · CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro-8,17-bis[(2-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L4 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:228551 CAPLUS
DOCUMENT NUMBER: 124:277432
TITLE: Methods for determining the concentration of an absorber homogeneously distributed in a carrier material
INVENTOR(S): Schweiger, Gerd
PATENT ASSIGNEE(S): AVL Gesellschaft fuer Verbrennungskraftmaschinen und Messtechnik mbH, Austria
SOURCE: Austrian, 7 pp.
CODEN: AUXXAK
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

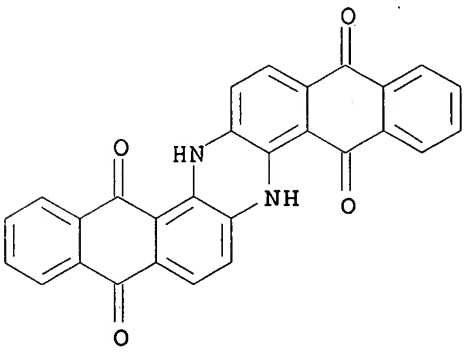
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AT 400639	B	19960226	AT 1994-1411	19940718
EP 693682	A2	19960124	EP 1995-890088	19950508
EP 693682	A3	19961030		
EP 693682	B1	19980708		
R: DE, FR, GB				
JP 08054337	A	19960227	JP 1995-148934	19950615
US 6040190	A	20000321	US 1997-843294	19970414

PRIORITY APPLN. INFO.: AT 1994-1411 A 19940718
US 1995-458844 B1 19950602

AB Methods for determining the concentration of an absorber homogeneously distributed in a carrier material of indeterminate thickness in which the absorber shows, at high concns., deviations from the Lambert-Beer law such that the optical absorption is described in terms of n (n ≥ 2) fictive concns. entail measuring the absorption at different wavelengths, solving for the fictive concns., and using the relationship between the fictive concns. and the actual concentration of the material (known from measurements of stds.) to determine the true concentration of the absorber.

IT 81-77-6, Indanthrene
RL: ANT (Analyte); ANST (Analytical study)
(spectroscopic determination of the concentration of an absorber homogeneously distributed in a carrier material)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)

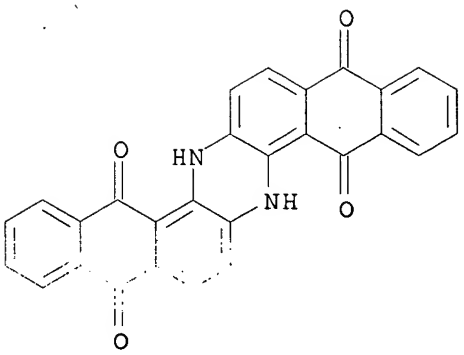


L4 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:127065 CAPLUS
DOCUMENT NUMBER: 120:127065
TITLE: Forensic examination of "slightly soluble" ink pigments using thin-layer chromatography
AUTHOR(S): Aginsky, Valery N.
CORPORATE SOURCE: Forensic Sci. Cent., Minist. Interior, Moscow, Russia
SOURCE: Journal of Forensic Sciences (1993), 38(5), 1131-3
CODEN: JFSCAS; ISSN: 0022-1198
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A three-step thin-layer chromatog. procedure for examining colored components of printing and writing inks and other marking materials is described. The procedure uses the original stage of separating phthalocyanine pigments and other "slightly soluble" organic pigments. Exptl. conditions are given.

IT 81-77-6, c.i. Pigment blue 60
RL: ANT (Analyte); ANST (Analytical study)
(thin-layer chromatog. of)

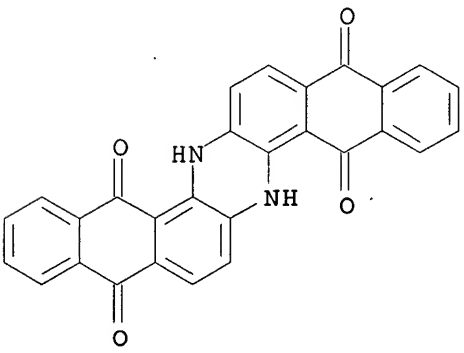
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1993:538418 CAPLUS
DOCUMENT NUMBER: 119:138418
TITLE: Identification of synthetic materials in modern paintings. II. Organic pigments and painting materials
AUTHOR(S): Sonoda, Naoko; Rioux, Jean Paul; Duval, Alain Rene
CORPORATE SOURCE: Natl. Mus. Japanese Hist., Sakura, 285, Japan
SOURCE: Studies in Conservation (1993), 38(2), 99-127
CODEN: SCONAH; ISSN: 0370-9124
DOCUMENT TYPE: Journal
LANGUAGE: French

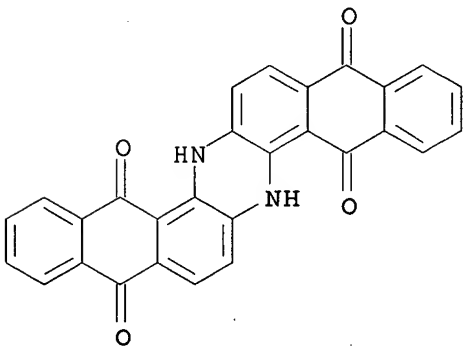
AB After a summary of the nature, history and the methods generally used for the anal. of organic synthetic pigments, 2 techniques, pyrolysis/gas-chromatog. and x-ray diffraction, are shown to be complementary and very useful in identifying these pigments. Microsamples of powdered pigments or minute fragments of painting materials may be analyzed without any preparation; moreover, pyrolysis/gas-chromatog. is also able to identify the synthetic binding medium used in a painting without any further anal. Several examples are given showing the relevance of these methods to the investigation of modern paintings; identification of the technique and diagnosis of alterations. They are also very useful to characterize retouchings or restoration materials.

IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(identification of, in modern paintings by pyrolysis gas chromatog. and x-ray diffraction anal.)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



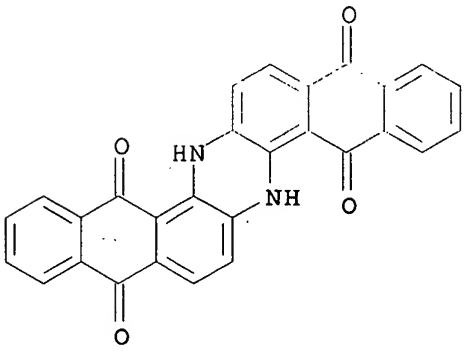
L4 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:77946 CAPLUS
DOCUMENT NUMBER: 116:77946
TITLE: The extraction and classification of dyes from cotton

and viscose fibers
AUTHOR(S): Laing, D. K.; Dudley, R. J.; Hartshorne, A. W.; Home, J. M.; Rickard, R. A.; Bennett, D. C.
CORPORATE SOURCE: Cent. Res. Support Establ., Home Off. Forensic Sci. Serv., Reading/Berkshire, RG7 4PN, UK
SOURCE: Forensic Science International (1991), 50(1), 23-35
CODEN: FSINDR; ISSN: 0379-0738
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A simple sequential scheme for the extraction and classification of dyestuffs from 10-20 mm lengths of single cotton or viscose fibers is described. The procedures described both classify the dyes successfully and at the same time provide exts. of all but the reactive and ingrained dyes. The overall performance of the scheme is good, but there appears to be a 5-10% chance of misclassification, usually by identifying vat as sulfur and vice versa. This difficulty is undoubtedly due to the large variation in composition and structure of the dyes used on cellulosic fibers. Unlike the dyes used on synthetic fibers, which are generally small mols., those used on cellulosic fibers are often large and fairly complex. Thus, the development of a simple, infallible scheme is highly unlikely.
IT 81-77-6, Cibanone Blue RS
RL: ANST (Analytical study)
(extraction of, from fibers, classification in relation to)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)

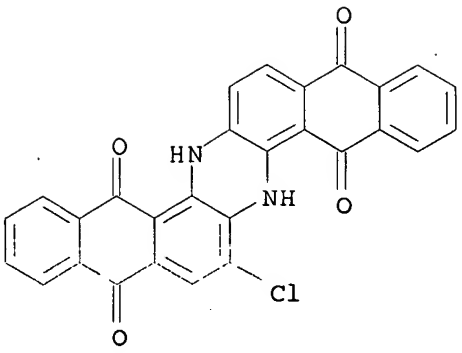


L4 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:572546 CAPLUS
DOCUMENT NUMBER: 111:172546
TITLE: Analysis of synthetic organic food dyes by thin-layer chromatography
AUTHOR(S): Meyer, R. A.; Gruendig, F.; Schaefer, R.; Schneider, J.
CORPORATE SOURCE: Bezirkshygieneinsp., Inst. Dresden, Dresden, 8020-DDR, Ger. Dem. Rep.
SOURCE: Nahrung (1989), 33(3), 261-8
CODEN: NAHRAR; ISSN: 0027-769X
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Food dyes were prepared and determined by TLC on cellulose FND or Silufol films or silica gel 60 G plates with PrOH-H2O (for the cellulose films) and EtOAc-MeOH-NH4OH (3:1:1, for all 3 stationary phases). The Rf values are tabulated for each system for the 17 dyes tested. Detection limits on cellulose FND with EtOAc-MeOH-NH4OH were: Azorubin and Brilliant Black BN 5; amaranth, Quinoline Yellow, Cochineal Red A, erythrosine, Yellow Orange S, Patent Blue V, and Ponceau 6R 10; and Chrysoin S, Fast Yellow, Fast Red E, indigotin, Orange GGN, Scarlet GN, and tartrazine 20 ng. The red dyes could be identified more easily by using UV rather than visible spectrometry.

IT 81-77-6, Indanthrene Blue RS
RL: ANT (Analyte); ANST (Analytical study)
(determination of, for food, by TLC)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:241866 CAPLUS
DOCUMENT NUMBER: 110:241866
TITLE: Spectrophotometric titration for the determination of sulfonic acids of some polycyclic aromatic substances
AUTHOR(S): Mashkova, O. B.; Chibisova, T. A.; Il'ina, T. V.; Ignatov, L. Ya.; Traven, V. F.
CORPORATE SOURCE: D. I. Mendeleev Moscow Chemicotechnol. Inst., Moscow, USSR
SOURCE: Zhurnal Analiticheskoi Khimii (1988), 43(10), 1881-5
CODEN: ZAKHA8; ISSN: 0044-4502
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A sensitive method of selective determination of individual mono- and disulfonic
acids of polycyclic aromatic substances is based on their spectrophotometric titration in 50% acetone by Ba salt solns. in the presence of o-cresolphthalein complexon as indicator. The method enables anal. of mixts. of isomeric disulfonic acids of polycyclic aromatic substances by their spectrophotometric titration in 50% acetone by BaCl2 vs. Nitchromazo.
IT 121008-58-0
RL: ANT (Analyte); ANST (Analytical study)
(determination of, by spectrophotometric titration)
RN 121008-58-0 CAPLUS
CN Anthrazinedisulfonic acid, 7-chloro-5,6,9,14,15,18-hexahydro-5,9,14,18-tetraoxo- (9CI) (CA INDEX NAME)

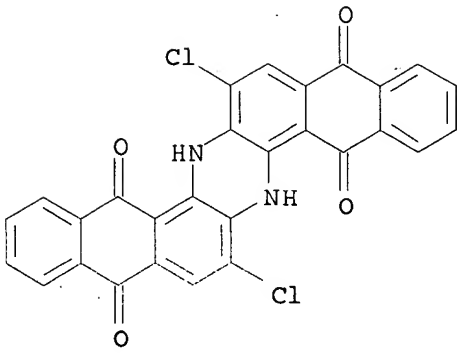


2 [D1—SO_3H]

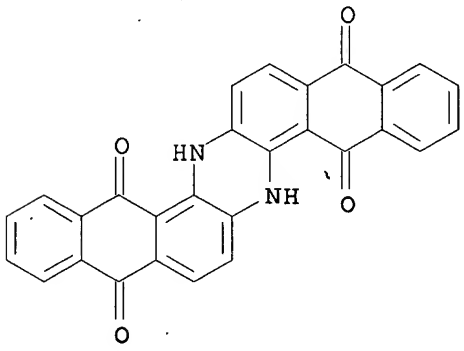
L4 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:67222 CAPLUS
DOCUMENT NUMBER: 102:67222
TITLE: Determination of synthetic organic colors in lipsticks by thin-layer and high-performance liquid chromatography
AUTHOR(S): Sjoberg, A. M.; Olkkonen, C.
CORPORATE SOURCE: Food Res. Lab., Tech. Res. Cent. Finland, Espoo, SF-02150, Finland
SOURCE: Journal of Chromatography (1985), 318(1), 149-54
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lipsticks (18), lip glosses (5), and a lip cream representing 10 manufacturers in 6 European countries were analyzed by TLC and HPLC. Silica gel 60 plates were streaked on 1 end with .apprx.10-20 mg of the sample and developed 2-4 times with CH_2Cl_2 to sep. oil-soluble nonsulfonated colors. Bands below the waxes and oils were removed and dissolved in CH_2Cl_2 for further anal. The colors remaining at the baseline were developed with EtOAc-MeOH-dilute NH_4OH (5:1:1). The bands and baseline were dissolved in pH 3.5 (H_3PO_4) MeOH-HOAc-0.01M Bu_4NOH (70:1:29). The colors were separated further and identified by chromatog. on a μBondapak C18 column with a Bondapak C18, Corasil guard column. The oil-soluble colors were eluted with MeOH-H_2O-HOAc (89:10:1) and measured at 405 nm, and the other colors were eluted with the pH 3.5 MeOH-HOAc-Bu_4NOH mixture and measured at 405 or 546 nm. Eleven colors were identified in the samples with 1-7 colors in a sample at levels of <0.1-9.1%. Recoveries of colors added to a lip gloss were 73-87% average, with a range of 53-102%.

IT 130-20-1
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in lipsticks by TLC and HPLC)
RN 130-20-1 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 7,16-dichloro-6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:197994 CAPLUS
DOCUMENT NUMBER: 96:197994
TITLE: Method 16. Identification of water-soluble colors in food using thin-layer chromatography
AUTHOR(S): Crosby, N. T.
CORPORATE SOURCE: Lab. Gov. Chem., London, SE1 9NQ, UK
SOURCE: IARC Scientific Publications (1981), 40, 337-40
CODEN: IARCCD; ISSN: 0300-5038
DOCUMENT TYPE: Journal
LANGUAGE: English
AB After extraction, TLC with Silica gel G or cellulose plates and various solvent systems is used to sep. 24 permitted and nonpermitted dyes found in food. The dyes are identified by Rf value.
IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(detection of, in food by TLC)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



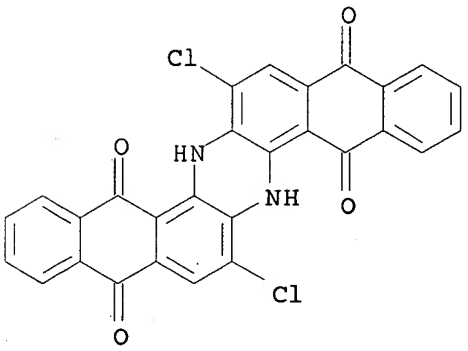
L4 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:534352 CAPLUS
DOCUMENT NUMBER: 95:134352
TITLE: New aspects of spectrophotometric analysis. I. Computational equations for the concentration of some dyes in mixtures
AUTHOR(S): Calu, N.; Vicol, Olga
CORPORATE SOURCE: Polytech. Inst. "Gh. Asachi", Iasi, Rom.
SOURCE: Revue Roumaine de Chimie (1981), 26(5), 783-92
CODEN: RRCHAX; ISSN: 0035-3930
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A set of equations using line slope and y axis intercept values was

elaborated for the concentration calcns. by the simultaneous or sep. determination of the dyes displaying a linear relation between absorbance for one component (A) and concentration (C) but not passing through the origin. Regulating the solvent together with other substances as well as pH of the solution can provide better linearity between A and C. The equations were applied to two anthraquinone dyes.

IT 130-20-1
RL: ANT (Analyte); ANST (Analytical study)
(spectrophotometric determination of, in mixts., equations for)

RN 130-20-1 CAPLUS

CN 5,9,14,18-Anthrazinetetrone, 7,16-dichloro-6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:495582 CAPLUS

DOCUMENT NUMBER: 95:95582

TITLE: Spectrophotometric determination of phosphorus in certifiable straight color additives: collaborative study

AUTHOR(S): Brammell, Wallace S.

CORPORATE SOURCE: Div. Color Technol., Food and Drug Adm., Washington, DC, 20204, USA

SOURCE: Journal - Association of Official Analytical Chemists (1981), 64(4), 808-13
CODEN: JANCA2; ISSN: 0004-5756

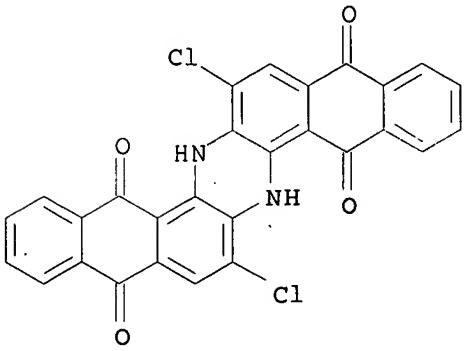
DOCUMENT TYPE: Journal

LANGUAGE: English

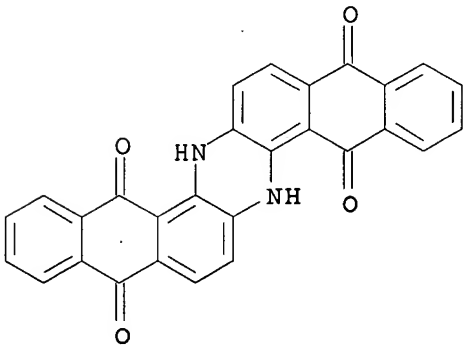
AB A single and rapid spectrometric method was developed for determining the total P content of certifiable straight color additives. The dye sample is mixed with a cellulose powder and MgO mixture and ashed at 500° in a small Pyrex beaker in a muffle furnace. The ash is dissolved in vanadomolybdic acid reagent and filtered through glass wool, and the absorbance of the resulting yellow molybdovanadophosphoric acid solution is measured at 400 nm. The total P content of the sample, expressed as percentage of Na_3PO_4, is determined from a standard curve. Recovery of P added as KH_2PO_4 to 39 various dyes in amts. equivalent to 0.300% Na_3PO_4 was 95.3-106.8%, averaging 100.6%. In the collaborative study, 7 labs. successfully performed duplicate analyses of 6 dyes (D&C Orange Number 5 [596-03-2], D&C Yellow Number 8 [518-47-8], FD&C Blue Number 2 [860-22-0], FD&C Red Number 3 [16423-68-0], FD&C Red Number 40 [25956-17-6] and FD&C Green Number 3 [2353-45-9]). The mean values found were 0.325-6.86% Na_3PO_4. In general, the accuracy and reproducibility of the method were satisfactory, with single determination coeffs. of variations of 3.76-9.60%. The method was adopted as an official first action.

IT 130-20-1
RL: AMX (Analytical matrix); ANST (Analytical study)

(phosphorus determination in, spectrometric)
RN 130-20-1 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 7,16-dichloro-6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:436486 CAPLUS
DOCUMENT NUMBER: 95:36486
TITLE: Thin-layer chromatography of dyes extracted from cellulosic fibers
AUTHOR(S): Home, J. M.; Dudley, R. J.
CORPORATE SOURCE: Home Off. Cent. Res. Establ., Aldermaston/Reading/Berks., RG7 4PN, UK
SOURCE: Forensic Science International (1981), 17(1), 71-8
CODEN: FSINDR; ISSN: 0379-0738
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A suitable solvent for the extraction of reactive dyes from cellulosic fibers was found and thin-layer chromatog. systems for the characterization of direct, reactive, vat and S dyes extracted from cellulosic fibers were evaluated. After examining several dyes extracted from manufacturers' pattern cards and casework materials, elution systems for use with the Al-backed Merck DC Alufolien Kieselgel 60F254 plates are recommended for direct and reactive dyes. No successful characterization of the vat or S dyes was possible.
IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(thin-layer chromatog. of, in forensic medicine)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



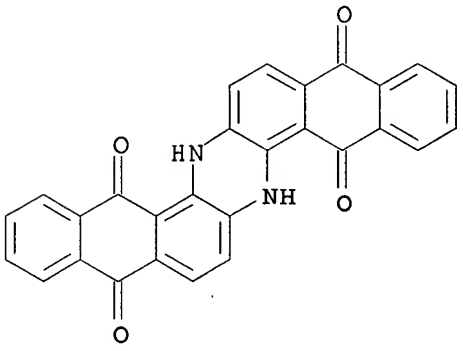
L4 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:57659 CAPLUS
DOCUMENT NUMBER: 94:57659

TITLE: Quantitative determination of monochloroindanthrone in a mixture with dichloroindanthrone
INVENTOR(S): Sadchenko, L. S.; Zinchenko, Yu. Ya.; Yadrikhinskii, V. V.
PATENT ASSIGNEE(S): USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1980, (32), 187.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 759922	A1	19800830	SU 1978-2633235	19780621
PRIORITY APPLN. INFO.:			SU 1978-2633235 A	19780621

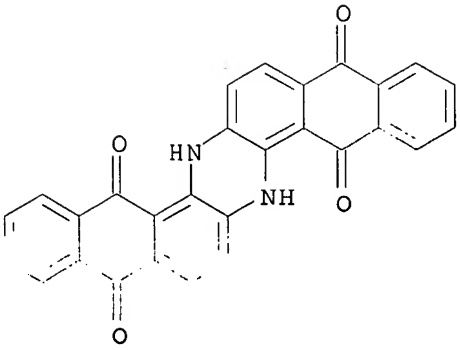
AB The accuracy of the determination was increased by treating the sample with a 1:1-2 mixture of HNO3 and dichloroethane at 49-50° with subsequent measurement of the IR absorption spectrum of the resulting mixture

IT 1324-27-2
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in mixts. containing dichloroindanthrone by IR spectrometry)
RN 1324-27-2 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, chloro-6,15-dihydro- (CA INDEX NAME)



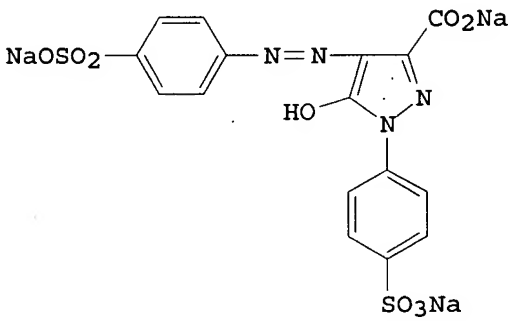
D1— Cl

IT 28262-03-5
RL: ANST (Analytical study)
(monochloroindanthrone determination in mixts. containing, by IR spectrometry)
RN 28262-03-5 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, dichloro-6,15-dihydro- (CA INDEX NAME)



2 (D1—Cl)

L4 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:209679 CAPLUS
DOCUMENT NUMBER: 92:209679
TITLE: A procedure for the identification of soluble food dyes in illicit drug preparations
AUTHOR(S): Joyce, J. R.; Sanger, D. G.
CORPORATE SOURCE: Home Off., Cent. Res. Establ., Aldermaston/Reading/ Berks., RG7 4PN, UK
SOURCE: Journal of the Forensic Science Society (1979), 19(3), 203-9
CODEN: FSSJAS; ISSN: 0015-7368
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

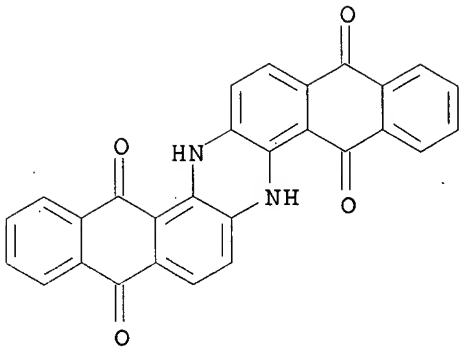


I

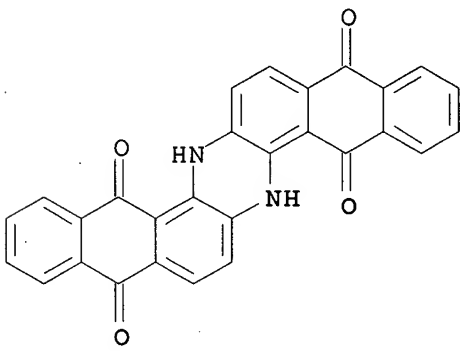
AB Twenty-two dyes, e.g. tartrazine (I) [1934-21-0], were fairly well separated by TLC on cellulose plates using trisodium citrate (2 g), H2O (100 mL), and NH3 (5 mL) as the developing system. The dyes could be identified by visible spectrophotometry (except for 3 orange dyes) and the identity could be confirmed by ion-pair high-performance liquid chromatog. on a column packed with SAS silica. Using the technique, I was identified as the dye in illicit LSD tablets. Other tablet dyes were also identified using the technique.

IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(detection of)

RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:476532 CAPLUS
DOCUMENT NUMBER: 81:76532
TITLE: Identification of U.K. and EEC food colors using standardized TLC [thin-layer chromatography] plates
AUTHOR(S): Pearson, D.
CORPORATE SOURCE: Natl. Coll. Food Technol., Univ. Reading, Weybridge/Surrey, UK
SOURCE: Journal of the Association of Public Analysts (1973), 11(4th Quarter), 135-8
CODEN: JPANA7; ISSN: 0004-5780
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Rf values for water-soluble colors permitted in the United Kingdom and by the E.E.C. are tabulated. Separation of the colors was done on silica gel plates with 10 solvent systems.
IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



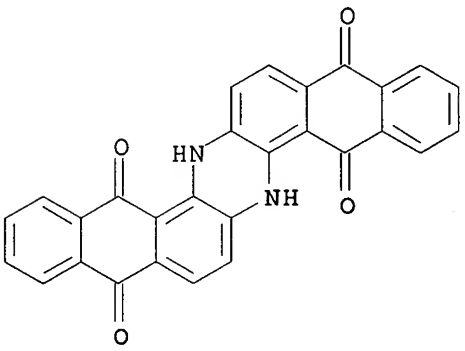
L4 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:476531 CAPLUS
DOCUMENT NUMBER: 81:76531
TITLE: Identification of EEC food colors
AUTHOR(S): Pearson, D.
CORPORATE SOURCE: Natl. Coll. Food Technol., Univ. Reading, Weybridge/Surrey, UK
SOURCE: Journal of the Association of Public Analysts (1973), 11(4th Quarter), 127-34
CODEN: JPANA7; ISSN: 0004-5780
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Paper chromatog. Rf values of nine new food colors (Indanthrene Blue, Patent Blue V, Quinoline Yellow, Fast Yellow AB, Brilliant Blue FCF, Violet 6B, Pigment Rubine, Burnt Umber, and Methyl Violet) included in the European Economic Community directive are tabulated with respect to 12 solvent systems. The principal spectrophotometric properties of these dyes, theirfluorescent behavior, and color changes in the presence of 10% NaOH or concentrated HCl are also described.

IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(detection of, by paper chromatog.)

RN 81-77-6 CAPLUS

CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1973:435208 CAPLUS

DOCUMENT NUMBER: 79:35208

TITLE: Determination of dyes in capsules and dragees

AUTHOR(S): Sitzius, F.; Rentsch, H.

CORPORATE SOURCE: Farbwerke Hoechst A.-G., Frankfurt/Hoechst, Fed. Rep. Ger.

SOURCE: Pharmazeutische Industrie (1973), 35(3), 148-50
CODEN: PHINAN; ISSN: 0031-711X

DOCUMENT TYPE: Journal

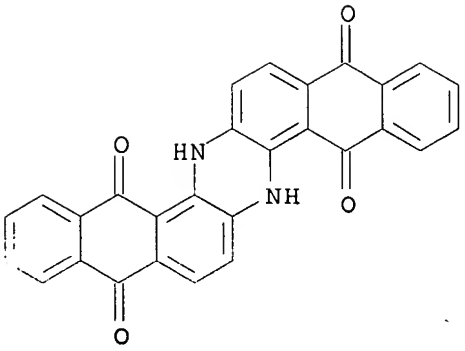
LANGUAGE: German

AB Dyes were separated by absorption filtration from AcOH solution over alumina. The dyes were eluted with very dilute aqueous NH4OH solution The dye solution was chromatographed on cellulose plates. Rf values were given for various dyes. Capsules were extracted with 10% AcOH. Erythrosin was extracted with water. Acid resistant capsules were extracted with alkaline solns., e.g., NH4OH, MeOH and water. Dragees were first digested with water and the solution treated with AcOH. A special procedure is given for chlorophyllin.

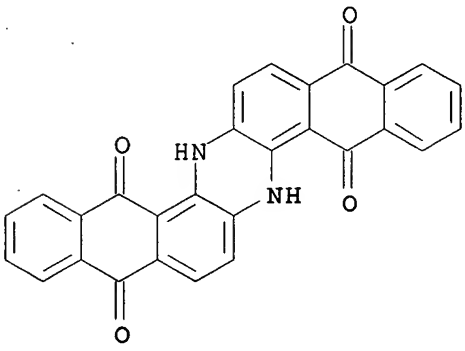
IT 81-77-6
RL: ANST (Analytical study)
(separation and identification of, in capsules and dragees)

RN 81-77-6 CAPLUS

CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:478031 CAPLUS
DOCUMENT NUMBER: 71:78031
TITLE: New staining method for demonstration of PVP [poly(vinylpyrrolidinone)] in tissue section
AUTHOR(S): Yamashita, Masaru; Nakamoto, Mitsuo; Matsumoto, Noboru; Hosokawa, Shuji
CORPORATE SOURCE: Sch. Med., Yamaguchi Univ., Ube, Japan
SOURCE: Acta Pathologica Japonica (1968), 18(3), 345-50
CODEN: APJAAG; ISSN: 0001-6632
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Anthraquinone vat dyes (caledon blue XRN, caledon jade green, caledon gold orange) are used in a new staining method for demonstration of poly(vinylpyrrolidinone) (PVP). Caledon blue XRN is the most suitable dye for staining PVP because of its specificity of staining and applicability of many counter stains. The probable mechanism of staining is discussed by comparing it to that of Congo red.
IT 81-77-6
RL: ANST (Analytical study)
(for polyvinylpyrrolidinone staining in tissue sections)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1969:411833 CAPLUS
DOCUMENT NUMBER: 71:11833
TITLE: Identification of synthetic water-soluble dyes
AUTHOR(S): De Rudder-Tack, Y.; Hansens, M.
SOURCE: Pharmaceutisch Tijdschrift voor Belgie (1967), 44(9), 173-5
CODEN: PHTBA8; ISSN: 0369-9714
DOCUMENT TYPE: Journal

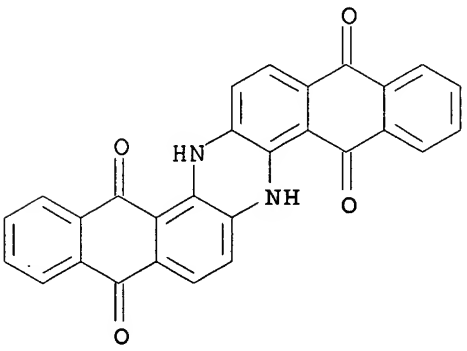
LANGUAGE: Dutch

AB Rf values were determined for dyes used in foods, by the authors' method (1967), using 2% tri-Na citrate in 5% NH3 as developing solvent. The following values were obtained (dye and Rf given): tartrazine 0.902f Chrysoin S, 0.722; Quinoline Yellow, 0.719; Fast Yellow, 0.774; Orange Yellow S, 0.781; Orange GGN, 0.798; Azorubin, 0.492; Amaranth, 0.752; Cochineal Red A, 0.854; Scarlet GN, 0.954; Ponceau 6R, 0.901 Indanthrene Blue RS, 0; Patent Blue V, 0.991; indigotin, - (decolorized); Brilliant Black BN, 0.511; Black 7984, 0.286; Erythrosine, 0.193; Fast Red, 0.663; Ponceau SX, 0.680; and Brilliant Green BS, 0.978. The Rf values are mean values of readings obtained parallel, perpendicular, and diagonally to the direction of the paper.

IT 81-77-6
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)

RN 81-77-6 CAPLUS

CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



L4 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:458408 CAPLUS

DOCUMENT NUMBER: 69:58408

TITLE: Paper-chromatographic separation of dyes permitted for use [foods and drugs] in the European Economic Community

AUTHOR(S): Dobrecky, Jose; De Carnevale Bonino, Rosa C. D.

CORPORATE SOURCE: Fac. Farm. Biochem., Univ. Nac. Buenos Aires, Buenos Aires, Argent.

SOURCE: Revista de la Asociacion Bioquimica Argentina (1967), 32(172), 139-43
CODEN: RABAAO; ISSN: 0004-4768

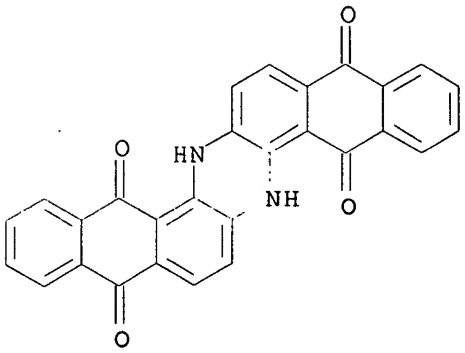
DOCUMENT TYPE: Journal

LANGUAGE: Spanish

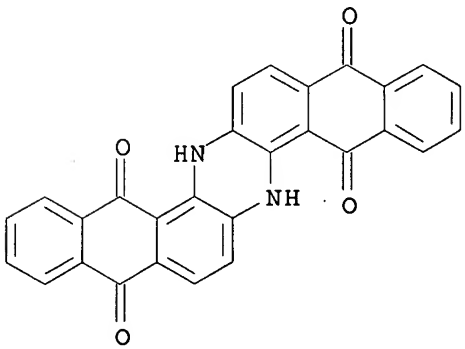
AB Two-dimensional paper chromatog. and acid solvents were used to sep. 14 of the dyes permitted by the European Economic Community. The dyes studied were: Brilliant Black BN, amaranth, indigo carmine, azorubin, quinoline yellow, Punzo 4R, tartrazine, erythrosine, Scarlet GN, Orange Yellow FCF, Patent Blue V, solid yellow, Punzo 6R, Chrysonine S, and indanthrene blue. The time of complete development of the chromatogram was about 4 hrs.; the process is accelerated in an aqueous solvent. Six red dyes and 3 blue dyes were separated by circular chromatog. The 2-dimensional technique is recommended because it does not require special solvents and permits the separation of a number of dyes; with circular chromatog. it is easy to sep. and identify the red and blue dyes. The solvents were (1) 2% di-Na EDTA and 5% NH4OH, and (2) BuOH-AcOH-H2O (4:1:5). The dye solns. were prepared at 1 γ/ml. Solvent (2) was used for development in the 1st direction and solvent (1) for the 2nd direction.

IT 81-77-6, Indanthrene Blue
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)

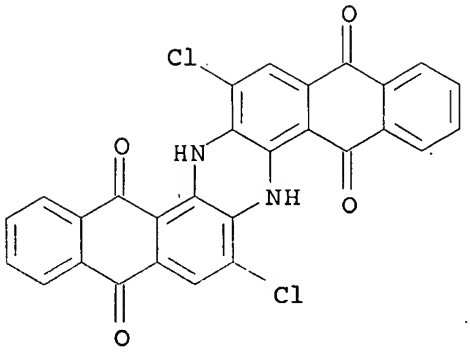
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



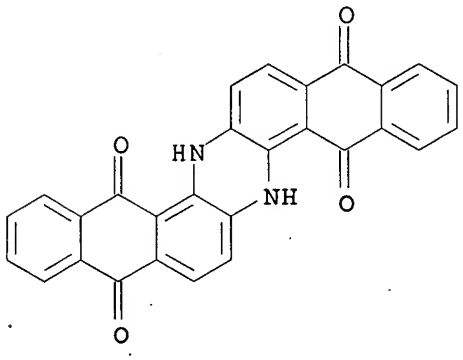
L4 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:14057 CAPLUS
DOCUMENT NUMBER: 68:14057
TITLE: Paper chromatography of dyes. VII. Paper chromatography of vat dyes
AUTHOR(S): Tajiri, Hiromi
CORPORATE SOURCE: Kureha Boseki Co. Ltd., Tsuruga, Japan
SOURCE: Kogyo Kagaku Zasshi (1966), 69(11), 2169-72
CODEN: KGKZA7; ISSN: 0368-5462
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Twenty-one solvent systems were tested by the ascending method at 20°, using Congo red, methyl orange, and 4-H2NC6H4N:NC6H4SO3Na-4 as model dyes. The solvent systems were also tested by using 14 vat dyes and the descending method in an atmospheric of N. Pyridine-BuNH2-H2O (2:1:7), pyridine-4.5N NH4OH (2:6), and BuNH2-H2O (4:6) were suitable for separating vat dyes having high affinity for cellulose, and tetraethylenepentamine-BuNH2-H2O (2:2:7) and pyridine-4.5N NH4OH (2:8) for separating were useful vat dyes having low affinity for cellulose. Each solvent system contained 1/20 (weight/volume) NaHSO3 to protect the dyes from oxidation Approx. 200 vat dyes were developed and separated successfully by the descending method using the 5 solvent systems described above. The paper used was Toyo-roshi number 50.
IT 81-77-6 130-20-1 1324-27-2 1324-28-3
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
RN 81-77-6 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydro- (CA INDEX NAME)



RN 130-20-1 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 7,16-dichloro-6,15-dihydro- (CA INDEX NAME)

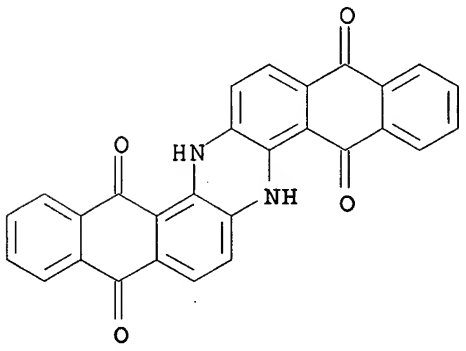


RN 1324-27-2 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, chloro-6,15-dihydro- (CA INDEX NAME)



D1— Cl

RN 1324-28-3 CAPLUS
CN 5,9,14,18-Anthrazinetetrone, 6,15-dihydrohydroxy- (CA INDEX NAME)



D1— OH

=> END
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:Y
COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	166.79	340.45

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.18	-24.18

STN INTERNATIONAL LOGOFF AT 20:13:15 ON 24 JUN 2007